



## SPECIFICATION IN CLEAN FORM

On page 8, amend the first full paragraph as follows:

91 As seen in Fig.1, associated with monitor 12 there is provided an automatic defibrillator module (ADM) 32. The ADM is connected to its own set of sensors or defibrillator pads 34 via a cable 36. The purpose of providing the ADM 32 as a module rather than a stand-alone unit is so that it can share some of the functions and components of the monitor 12. For this purpose, the ADM 32 is connected to monitor 12 via a data cable 38 which acts as an output member and interfaces the ADM 32 with the monitor 12 as described in more detail below. Power to the ADM 32 can be provided by the power supply via a cable 40, or alternatively, the cable 40 may be connected to a standard line voltage outlet (not shown).

On page 11, amend the second full paragraph as follows:

92 Fig. 4e is a high voltage, high current, implementation of a "breakover" USD, equivalent to a Shockley diode, using a DIAC and a TRIAC. Note that the overall circuit of Fig. 4e has only two terminals, an anode A' and a cathode K'. The TRIAC will change to a state of low impedance allowing a high current to flow when an appropriate voltage is applied to its gate terminal g. The combination of resistors R1 and R2 form a voltage divider, dividing the voltage V down to a voltage Vb, referenced to the cathode K', at the base of the transistor T1, where  $V_b = V[R_2/(R_1+R_2)]$ . The emitter follower configuration of transistor T1 keeps the voltage applied to the DIAC at point X at approximately 0.7 Volts below the voltage Vb.

On page 14, amend the last paragraph as follows:

63 Fig. 5a shows the circuit symbol for a breakunder USD with hysteresis. Fig. 5b shows an implementation of the device based upon the breakunder device shown in Fig. 4f-h. Only the differences will be described. A transistor T2 now forms a second emitter follower supplying a second DIAC, DIAC2. The voltage at point Y is designed to have a value equal to the threshold of DIAC2 when the voltage V across A', K' is equal to an upper threshold  $V_h$ . From Fig. 5b it can be seen that, unlike the voltage at point X, the voltage at point Y will instantaneously follow V and will be a proportion of V according to the ratio set by R4 and R5. If the voltage V causes the voltage at Y to exceed the voltage threshold of DIAC2, then a second TRIAC, TRIAC2, will enter a low impedance state. As soon as TRIAC2 enters its low impedance state, the voltage  $V_b$  at the base of T1 will reduce to almost zero. Once TRIAC2 has entered a low impedance state T1 cannot supply any current to DIAC1 and therefore the gate of TRIAC1. This "feedback" enhancement of Fig. 4 has introduced a level of hysteresis in to the arrangement. The only way now for TRIAC1 to enter its low impedance state is for the voltage across A', K' to be reduced to zero and then a new voltage applied which has a value between the lower threshold set by R1, R2 and DIAC1 and the upper threshold set by R4, R5 and DIAC2. This device has essentially three modes, two high impedance and one low impedance. If the instantaneous voltage applied to the arrangement is below the lower threshold  $V_l$ , then the combination of R1, R2 and T1 means that DIAC1 does not pass current and TRIAC1 remains in it's high impedance state. If the applied voltage is greater than the lower threshold  $V_l$  and

Q<sup>3</sup> less than the upper threshold  $V_h$ , then the combination of R4, R5 and T2 means that DIAC2 does not pass current and with DIAC1 now passing current, once the voltage across C1 has had sufficient time to rise, to the gate of TRIAC1, TRIAC1 enters its low impedance state. If, however, the applied voltage is greater than the upper threshold  $V_h$ , then the combination of R4, R5 and T2 means that DIAC2 does pass current to the gate of TRIAC2 thereby inhibiting DIAC1 and keeping TRIAC1 in its high impedance state.

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